

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

100903
17414 U.S. PTOUTILITY
PATENT APPLICATION
TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

10/684622
22286 U.S. PTO

100903

Attorney Docket No.	12-1229
First Inventor	Ronald P. Smith
Title	See 1 in Addendum
Express Mail Label No.	ET837519405US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:
Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

1. Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. Applicant claims small entity status.
See 37 CFR 1.27.
3. Specification [Total Pages 13]
(preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
4. Drawing(s) (35 U.S.C. 113) [Total Sheets 3]
5. Oath or Declaration [Total Sheets 2]
 - a. Newly executed (original or copy)
 - b. Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 18 completed)
 - i. DELETION OF INVENTOR(S)
Signed statement attached deleting inventor(s)
name in the prior application, see 37 CFR
1.63(d)(2) and 1.33(b).
6. Application Data Sheet. See 37 CFR 1.76

7. CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)
 - a. Computer Readable Form (CRF)
 - b. Specification Sequence Listing on:
 - i. CD-ROM or CD-R (2 copies); or
 - ii. Paper
 - c. Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. Assignment Papers (cover sheet & document(s))
10. 37 CFR 3.73(b) Statement Power of Attorney
(when there is an assignee)
11. English Translation Document (if applicable)
12. Information Disclosure Statement (IDS)/PTO-1499 Copies of IDS Citations
13. Preliminary Amendment
14. Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
15. Certified Copy of Priority Document(s)
(if foreign priority is claimed)
16. Nonpublication Request under 35 U.S.C. 122
(b)(2)(B)(i). Applicant must attach form PTO/SB/35
or its equivalent.
17. Certificate of Express Mail
Other: _____

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

 Continuation Divisional Continuation-in-part (CIP) of prior application No.: _____Prior application information: _____ Examiner _____ Art Unit: _____
For CONTINUATION OF DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

 Customer Number: _____ OR Correspondence address below

Name	Northrop Grumman Space & Mission Systems Corp.				
Address	One Space Park Bldg. E1/4021				
City	Redondo Beach	State	CA	Zip Code	90278
Country		Telephone	310-812-4910	Fax	310-812-2687

Name (Print/Type)	Connie M. Thousand	Registration No. (Attorney/Agent)	43,191
Signature	<i>Connie M. Thousand</i>	Date	10/08/2003

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Addendum

1. POWER SAVING ZERO PRUNING ALGORITHM FOR FAST FOURIER TRANSFORM (FFT) CIRCUITRY

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL

for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

 Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 810.00)

Complete if Known	
Application Number	
Filing Date	October 9, 2003
First Named Inventor	Ronald P. Smith
Examiner Name	Unassigned
Art Unit	N/A
Attorney Docket No.	12-1229

METHOD OF PAYMENT (check all that apply)		FEE CALCULATION (continued)																																																																																																																																	
<input type="checkbox"/> Check <input type="checkbox"/> Credit card <input type="checkbox"/> Money Order <input type="checkbox"/> Other <input type="checkbox"/> None <input checked="" type="checkbox"/> Deposit Account:		3. ADDITIONAL FEES <table border="1"> <thead> <tr> <th>Large Entity</th> <th>Small Entity</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>1051</td> <td>130</td> <td>2051 65 Surcharge - late filing fee or oath</td> <td></td> </tr> <tr> <td>1052</td> <td>50</td> <td>2052 25 Surcharge - late provisional filing fee or cover sheet</td> <td></td> </tr> <tr> <td>1053</td> <td>130</td> <td>1053 130 Non-English specification</td> <td></td> </tr> <tr> <td>1812</td> <td>2,520</td> <td>1812 2,520 For filing a request for ex parte reexamination</td> <td></td> </tr> <tr> <td>1804</td> <td>920*</td> <td>1804 920* Requesting publication of SIR prior to Examiner action</td> <td></td> </tr> <tr> <td>1805</td> <td>1,840*</td> <td>1805 1,840* Requesting publication of SIR after Examiner action</td> <td></td> </tr> <tr> <td>1251</td> <td>110</td> <td>2251 55 Extension for reply within first month</td> <td></td> </tr> <tr> <td>1252</td> <td>410</td> <td>2252 205 Extension for reply within second month</td> <td></td> </tr> <tr> <td>1253</td> <td>930</td> <td>2253 465 Extension for reply within third month</td> <td></td> </tr> <tr> <td>1254</td> <td>1,450</td> <td>2254 725 Extension for reply within fourth month</td> <td></td> </tr> <tr> <td>1255</td> <td>1,970</td> <td>2255 985 Extension for reply within fifth month</td> <td></td> </tr> <tr> <td>1401</td> <td>320</td> <td>2401 160 Notice of Appeal</td> <td></td> </tr> <tr> <td>1402</td> <td>320</td> <td>2402 160 Filing brief in support of an appeal</td> <td></td> </tr> <tr> <td>1403</td> <td>280</td> <td>2403 140 Request for oral hearing</td> <td></td> </tr> <tr> <td>1451</td> <td>1,510</td> <td>1451 1,510 Petition to institute a public use proceeding</td> <td></td> </tr> <tr> <td>1452</td> <td>110</td> <td>2452 55 Petition to revive - unavoidable</td> <td></td> </tr> <tr> <td>1453</td> <td>1,300</td> <td>2453 650 Petition to revive - unintentional</td> <td></td> </tr> <tr> <td>1501</td> <td>1,300</td> <td>2501 650 Utility issue fee (or reissue)</td> <td></td> </tr> <tr> <td>1502</td> <td>470</td> <td>2502 235 Design issue fee</td> <td></td> </tr> <tr> <td>1503</td> <td>630</td> <td>2503 315 Plant issue fee</td> <td></td> </tr> <tr> <td>1460</td> <td>130</td> <td>1460 130 Petitions to the Commissioner</td> <td></td> </tr> <tr> <td>1807</td> <td>50</td> <td>1807 50 Processing fee under 37 CFR 1.17(q)</td> <td></td> </tr> <tr> <td>1806</td> <td>180</td> <td>1806 180 Submission of Information Disclosure Stmt</td> <td></td> </tr> <tr> <td>8021</td> <td>40</td> <td>8021 40 Recording each patent assignment per property (times number of properties)</td> <td>40.00</td> </tr> <tr> <td>1809</td> <td>750</td> <td>2809 375 Filing a submission after final rejection (37 CFR 1.129(a))</td> <td></td> </tr> <tr> <td>1810</td> <td>750</td> <td>2810 375 For each additional invention to be examined (37 CFR 1.129(b))</td> <td></td> </tr> <tr> <td>1801</td> <td>750</td> <td>2801 375 Request for Continued Examination (RCE)</td> <td></td> </tr> <tr> <td>1802</td> <td>900</td> <td>1802 900 Request for expedited examination of a design application</td> <td></td> </tr> <tr> <td colspan="4">Other fee (specify) Certificate of Express Mail</td> </tr> <tr> <td colspan="4">*Reduced by Basic Filing Fee Paid</td> <td>SUBTOTAL (3) (\$)</td> <td>40.00</td> </tr> </tbody> </table>				Large Entity	Small Entity	Fee Description	Fee Paid	1051	130	2051 65 Surcharge - late filing fee or oath		1052	50	2052 25 Surcharge - late provisional filing fee or cover sheet		1053	130	1053 130 Non-English specification		1812	2,520	1812 2,520 For filing a request for ex parte reexamination		1804	920*	1804 920* Requesting publication of SIR prior to Examiner action		1805	1,840*	1805 1,840* Requesting publication of SIR after Examiner action		1251	110	2251 55 Extension for reply within first month		1252	410	2252 205 Extension for reply within second month		1253	930	2253 465 Extension for reply within third month		1254	1,450	2254 725 Extension for reply within fourth month		1255	1,970	2255 985 Extension for reply within fifth month		1401	320	2401 160 Notice of Appeal		1402	320	2402 160 Filing brief in support of an appeal		1403	280	2403 140 Request for oral hearing		1451	1,510	1451 1,510 Petition to institute a public use proceeding		1452	110	2452 55 Petition to revive - unavoidable		1453	1,300	2453 650 Petition to revive - unintentional		1501	1,300	2501 650 Utility issue fee (or reissue)		1502	470	2502 235 Design issue fee		1503	630	2503 315 Plant issue fee		1460	130	1460 130 Petitions to the Commissioner		1807	50	1807 50 Processing fee under 37 CFR 1.17(q)		1806	180	1806 180 Submission of Information Disclosure Stmt		8021	40	8021 40 Recording each patent assignment per property (times number of properties)	40.00	1809	750	2809 375 Filing a submission after final rejection (37 CFR 1.129(a))		1810	750	2810 375 For each additional invention to be examined (37 CFR 1.129(b))		1801	750	2801 375 Request for Continued Examination (RCE)		1802	900	1802 900 Request for expedited examination of a design application		Other fee (specify) Certificate of Express Mail				*Reduced by Basic Filing Fee Paid				SUBTOTAL (3) (\$)	40.00
Large Entity	Small Entity	Fee Description	Fee Paid																																																																																																																																
1051	130	2051 65 Surcharge - late filing fee or oath																																																																																																																																	
1052	50	2052 25 Surcharge - late provisional filing fee or cover sheet																																																																																																																																	
1053	130	1053 130 Non-English specification																																																																																																																																	
1812	2,520	1812 2,520 For filing a request for ex parte reexamination																																																																																																																																	
1804	920*	1804 920* Requesting publication of SIR prior to Examiner action																																																																																																																																	
1805	1,840*	1805 1,840* Requesting publication of SIR after Examiner action																																																																																																																																	
1251	110	2251 55 Extension for reply within first month																																																																																																																																	
1252	410	2252 205 Extension for reply within second month																																																																																																																																	
1253	930	2253 465 Extension for reply within third month																																																																																																																																	
1254	1,450	2254 725 Extension for reply within fourth month																																																																																																																																	
1255	1,970	2255 985 Extension for reply within fifth month																																																																																																																																	
1401	320	2401 160 Notice of Appeal																																																																																																																																	
1402	320	2402 160 Filing brief in support of an appeal																																																																																																																																	
1403	280	2403 140 Request for oral hearing																																																																																																																																	
1451	1,510	1451 1,510 Petition to institute a public use proceeding																																																																																																																																	
1452	110	2452 55 Petition to revive - unavoidable																																																																																																																																	
1453	1,300	2453 650 Petition to revive - unintentional																																																																																																																																	
1501	1,300	2501 650 Utility issue fee (or reissue)																																																																																																																																	
1502	470	2502 235 Design issue fee																																																																																																																																	
1503	630	2503 315 Plant issue fee																																																																																																																																	
1460	130	1460 130 Petitions to the Commissioner																																																																																																																																	
1807	50	1807 50 Processing fee under 37 CFR 1.17(q)																																																																																																																																	
1806	180	1806 180 Submission of Information Disclosure Stmt																																																																																																																																	
8021	40	8021 40 Recording each patent assignment per property (times number of properties)	40.00																																																																																																																																
1809	750	2809 375 Filing a submission after final rejection (37 CFR 1.129(a))																																																																																																																																	
1810	750	2810 375 For each additional invention to be examined (37 CFR 1.129(b))																																																																																																																																	
1801	750	2801 375 Request for Continued Examination (RCE)																																																																																																																																	
1802	900	1802 900 Request for expedited examination of a design application																																																																																																																																	
Other fee (specify) Certificate of Express Mail																																																																																																																																			
*Reduced by Basic Filing Fee Paid				SUBTOTAL (3) (\$)	40.00																																																																																																																														
<input type="checkbox"/> or number previously paid, if greater. For Reissues, see above																																																																																																																																			
(Complete if applicable)																																																																																																																																			

SUBMITTED BY

Name (Print/Type)	Connie M. Thousand	Registration No. (Attorney/Agent)	43,191	Telephone	310-813-1550
Signature	<i>Connie M. Thousand</i>			Date	October 8, 2003

WARNING: Information in this form may become public. Credit card information should not be included in this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Ronald P. Smith**

Application No.: **Group No.: N/A**
Filed: **10/09/2003** Examiner: **Unassigned**
For: **POWER SAVING ZERO PRUNING ALGORITHM FOR FAST FOURIER TRANSFORM (FFT)**
CIRCUITRY

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

EXPRESS MAIL CERTIFICATE

"Express Mail" label number ET837419304US

Date of Deposit 10/09/2003

I hereby state that the following *attached* papers or fees

Utility Patent Application Transmittal 2pgs.
Fee Transmittal in duplicate
Patent Application (13pgs., Specification 9pgs., Claims 3pgs. (6 claims), Abstract 1pg.)
3 Sheets Formal Drawings (Figures 1-4)
Declaration 2pgs.
Assignment 1pg.
PTO-1595 in duplicate

are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10, on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Lorna L. Schott



Signature of person mailing paper or fee